

ABSTRACT

A scrambling initial value is shared without deteriorating transmission efficiency.

On the transmission side, a scrambling initial value is created based on a part of a physical layer header not scrambled, a transmission signal sequence scrambled is created by calculating an exclusive-OR operation between a scrambled sequence generated from the scrambling initial value and a transmission data sequence, and is transmitted. On the reception side, the same descrambling initial value as the scrambling initial value is created based on a part of a physical header of a reception frame, and a reception data sequence is descrambled by calculating an exclusive-OR operation between a descrambled sequence generated from this descrambling initial value and a reception signal sequence scrambled.